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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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THOMAS, KAYDEN, HORSTEMEYER & RISLEY LLP
600 GALLERIA PARKWAY, 15TH FLOOR
ATLANTA, GA 30339

EXAMINER	
KARDOS, NEIL R	

ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,213	CHAO ET AL.	
	Examiner	Art Unit	
	Neil R. Kardos	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is a **FINAL** Office Action on the merits in response to communications filed on November 30, 2008. Claims 1-17 and 21-29 have been amended. Currently, claims 1-32 are pending and have been examined.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection is necessitated by Applicant's amendments to the claims; thus, the finality of the Office Action is proper.

Response to Amendment

Applicant's amendments are sufficient to overcome the rejections under 35 U.S.C. § 112 set forth in the previous Office Action. Accordingly, these rejections are withdrawn.

Applicant's amendments are sufficient to overcome the rejections of claims 1 and 9 under 35 U.S.C. § 101 set forth in the previous Office Action. Accordingly, these rejections are withdrawn.

Applicant's amendments are NOT sufficient to overcome the rejections of claims 5, 13, and 17 under 35 U.S.C. § 101 set forth in the previous Office Action. Accordingly, these rejections are maintained below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 5-8 and 13-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 5, 13, and 17: Claims 5, 13, and 17 are directed toward the statutory category of a process. In order for a claimed process to be patentable subject matter under 35 U.S.C. § 101, it must either: (1) be tied to a particular machine, or (2) transform a particular article to a different state or thing. *See In Re Bilski*, 88 U.S.P.Q.2d 1385 (2008); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method/process is not patentable subject matter under § 101. Thus, to qualify as a statutory process under § 101, the claim should positively recite the machine to which it is tied (e.g. by identifying the apparatus that accomplishes the method steps), or positively recite the subject matter that is being transformed (e.g. by identifying the material that is being changed to a different state). Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. *See Benson*, 409 U.S. at 71-72. Thus, incidental physical limitations such as insignificant extra-solution activity and field of use limitations are not sufficient to convert an otherwise ineligible process into a statutory one.

Here, the claimed process fails to meet the above requirements for patentability under § 101 because it is not tied to a particular machine and does not transform underlying subject matter. Applicant has amended the claims to recite a method "for use in a computer system" in

the preamble of the claims. This limitation in the preamble amounts to no more than an incidental physical limitation (i.e. insignificant extra-solution activity or field of use). Thus, the claims are not tied to a particular machine and are not patentable under § 101.

Claims 6-8, 14-16, and 18-20: Dependent claims 6-8, 14-16, and 18-20 are rejected for failing to remedy the deficiencies of the claims from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lann, "Single Machine Scheduling to Minimize the Number of Early and Tardy Jobs."

Claim 1: Lann discloses:

- receiving a plurality of orders, wherein the orders are classified into a first type and a second type, the first type orders comprises at least a first order having a period delivery demand, wherein the period delivery demand designates a specific period, and directs a supplier to deliver products corresponding to the first order at an arbitrary delivery date planned by the supplier, and the arbitrary delivery date is before the end of the specific period (page 771: ¶ 2, disclosing orders due within a time window; section 3.2), and the second type orders comprises at least

a third order having an on-schedule delivery demand, wherein the on-schedule delivery demand designates a specific due date, and directs the supplier to deliver products corresponding to the third order on the specific due date, wherein a respective capacity is reserved for the first order and the third order (see section 1 on pages 769-771, which discloses specific due dates for orders; section 3.1); and

- a pull-in engine to receive a second order with a pull-in demand, identify and select at least one of the first order within the first type orders, push out the selected first order, and direct the capacity reserved for the selected first order to meet the second order (see algorithm 1 on page 772; algorithm 2 on page 773).

Lann does not explicitly disclose a system for carrying out the disclosed methodology including a processor and computer readable medium. However, Examiner takes Official Notice that it was well-known in the art at the time the invention was made to automate processes. *See in re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to automate the methodology of Lann by utilizing a system in order to increase efficiencies.

Furthermore, Examiner takes Official Notice of the entire claim. Applicant is essentially claiming the following:

(1) receiving two types of orders: type 1 with a due date and type 2 with a due window;

(2) when a new order is received that must be processed, replace the type 2 order rather than the type 1 order.

Examiner takes Official Notice that both of the claimed types of orders were well-known in the art at the time the invention was made (Examiner has shown this through the Lann reference).

Examiner also takes Official Notice that it was well-known in the art at the time the invention was made to replace the most flexible orders rather than the most rigid when a rush order must be processed (i.e. using capacity reserved for type 2 orders rather than type 1 orders to meet rush order demand). Examiner notes that these are very basic concepts in production planning that would have been known to one of rudimentary skill in the art at the time the invention was made.

Claim 2: Examiner takes Official Notice that it was well-known in the production planning arts at the time the invention was made to allocate capacity for additional orders. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply well-known production planning techniques to Lann for the benefit of an accurate resource allocation plan.

Claim 3: Lann discloses generating a new manufacturing planning schedule and delivery dates for the selected first order and second order (see algorithms 1 and 2).

Claim 4: Lann does not explicitly disclose wherein the selected first order further has a billing condition directing the supplier to generate a bill for the first order as late as possible.

Examiner takes Official Notice that it was well-known in the arts at the time the invention was made to gain the benefits of a "pay as late as possible" policy (due to the time value of money), and to give higher priority to customers who make payments first (e.g. reserving a spot in a queue for customers who pay first).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply well-known business practices to the methodology disclosed by Lann in order to give higher priority to customers who pay first (by pushing out customers with a "pay as late as possible" billing condition on their order). One of ordinary skill in the art would have been motivated to do so for the benefit of increased cash flows for the seller.

Also, Examiner notes that Applicant has failed to traverse Examiner's Official Notice, which was originally set forth in the previous Office action. Therefore, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

Claims 5-8: Claims 5-8 are substantially similar to claims 1-4 and are rejected under similar rationale.

Claims 9-12: Claims 9-12 are substantially similar to claims 1-4 and are rejected under similar rationale, except that the first order is pushed out if a production event occurs during product manufacturing in the supplier. Examiner takes Official Notice that it was well-known in the art at the time the invention was made to reschedule orders when some "production event" occurs (e.g. machine breakdown). It would have been obvious to one of ordinary skill in the art at the time the invention was made to reschedule the orders of Lann when such an event occurs for the benefit of a more efficient schedule.

Claims 13-16: Claims 13-16 are substantially similar to claims 9-12 and are rejected under similar rationale.

Claims 17-20: Claims 17-20 are substantially similar to claims 9-12 and are rejected under similar rationale.

Claims 21-24: Claims 21-24 are substantially similar to claims 1-4 and are rejected under similar rationale.

Claims 25-28: Claims 25-28 are substantially similar to claims 9-12 and are rejected under similar rationale.

Claims 29-32: Claims 29-32 are substantially similar to claims 9-12 and are rejected under similar rationale.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos
Examiner
Art Unit 3623

NRK
2/5/09
/Jonathan G. Sterrett/
Primary Examiner, Art Unit 3623